ORIGINAL

GILA BEND POWER PARTNERS, LLC
5949 Sherry Lane, Suite 1900
Dallas, Texas 75225-6553
Telephone: (214) 210-5000
Facsimile: (214) 210-5087

February 25, 2016

Via Overnight Delivery

Arizona Corporation Commission
Utilities Division Director
1200 West Washington Street
Phoenix, Arizona 85007
Attention: Director

Re: Self-Certification Letter – Arizona Corporation Commission – Decision #65866; Docket Control #L-00000V-02-0119-00000

Dear Sir or Madam:

Gila Bend Power Partners, LLC ("GBPP" or "Applicant") files this self-certification letter regarding the above Decision Number for the Certificate of Environmental Compatibility ("CEC") for a project in Gila Bend, Arizona. The construction of the power generation station and site referred to in the CEC Decision has been delayed due to market conditions. The activities relating to the initial conditions established by the CEC document are as follows and reference numbers correspond to the conditions as numbered in the CEC:

1. The authorization originally granted in the CEC was extended to February 7, 2018 pursuant to Arizona Corporation Commission Decision No. 72176, docketed February 11, 2011.

2. No transmission agreements have been signed. A copy of any transmission agreements will be forwarded to the Arizona Corporation Commission as soon as the documents are completed and signed, but in no event later than 30 days after execution of same.

3. Although not yet constructed, the planning and siting for the transmission line and related switchyard will be consistent with the visual and cultural resource analyses and shall match the structure spans and structure type with the existing Palo Verde-Kyrene line unless site-specific conditions require a structure to be moved.

4. Although not yet constructed, the planning and construction specifications will require use of dulled steel structures and non-specular and dulled conductors as necessary to reduce the contrast and visibility of the transmission line.

5. GBPP shall make every reasonable effort to ensure that such transmission line will be timely constructed in accordance with the needs of the integrated transmission grid. GBPP has timely submitted 10-year plans as required for inclusion in Biannual Transmission Studies (see enclosed transmittal letters), and is coordinating with new solar power generators in the area regarding transmission lines.

6. The planning and siting for the Project will encompass location of the transmission line in accordance with the legal description (the "Alignment") attached to the CEC. When GBPP begins construction, GBPP shall locate its Transmission Line 130 feet west and south of SRP's Palo Verde to Pinal West Line.

7. Applicant is in compliance with all existing applicable air and water pollution control standards and regulations, and with all existing applicable ordinances, master plans and regulations of the State of Arizona, Maricopa County, Arizona, the United States and any other governmental entities having jurisdiction.

8. Prior to commencement of construction, GBPP will file a construction mitigation, revegetation and restoration plan with the Commission Docket Control and shall, within one year of completion of the Project, rehabilitate to its original state any area disturbed by the construction of the Project, except for any road necessary to access the transmission lines for maintenance and repair.

9. Applicant will survey for southwestern willow flycatchers prior to construction, and provide mitigation measures according to state and federal guidelines. If necessary, additional cactus ferruginous pygmy-owl surveys will be conducted in the appropriate season prior to construction.

10. The construction planning for the Project shall encompass procedures to conduct all construction and maintenance activities in a manner that will minimize disturbance to vegetation, drainage channels, and intermittent and perennial stream banks. In addition, all existing roads will be left in a condition equal to or better than their condition prior to the construction of the transmission line.

11. The construction planning for the Project shall specify conformance to "Suggested Practices for Raptor Protection on Power Lines" (Raptor Research Foundation, Inc., 1981).

12. The construction planning for the Project shall include the engagement of a qualified biologist to monitor ground clearing and disruptive construction activities in areas where sensitive species occur and shall bear the responsibility for ensuring proper actions are taken if a special status species is encountered.

13. Applicant will comply with Arizona's Native Plant Law and notify the Arizona Department of Agriculture no later than 60 days prior to the start of construction.

14. GBPP shall continue to consult with the State Historic Preservation Office (SHPO) to reach a determination of any cultural resource impacts. GBPP shall implement any impact avoidance and mitigation measures for cultural resources developed in consultation with the BLM and the SHPO on land under BLM's jurisdiction and with ASLD on land under ASLD's jurisdiction, and shall also work with BLM to ensure that BLM consults with the Hopi Tribe as requested in the Hopi Tribe's letter of June 6, 2002.

15. The construction planning for the Project shall encompass procedures that will avoid or minimize impacts to properties considered eligible for inclusion in the State and National Register of Historic Places to the extent possible. If human remains and/or funerary objects are encountered during the course of any ground-disturbing activities relating to the development of the subject property, GBPP shall cease work on the affected area of the Project and notify the Director of the Arizona State Museum or the BLM.

16. The construction planning for the Project shall encompass consultation with SHPO and any applicable land-managing agency, to consider and assess potential direct and indirect impacts to eligible properties related to new access roads or any existing access roads that require blading.

17. The construction planning for the Project shall encompass GBPP's use of existing access roads along the Palo Verde-Kyrene line for construction and maintenance access and only build spur roads for access to new structures.

18. The construction planning for the Project shall encompass GBPP restricting all construction vehicle movement outside of the right-of-way to pre-designated access, contractor acquired access or public roads.

19. Post construction activity. Currently inapplicable.

20. Post construction activity. Currently inapplicable.

21. Post construction activity. Currently inapplicable.

22. Post construction activity. Currently inapplicable.

23. GBPP construction contracts will require the contractor to be instructed on the protection of cultural and ecological resources and such contracts will address federal and state laws regarding antiquities and plants and wildlife, including collection and removal.

24. The construction planning for the Project shall encompass procedures and requirements for covering construction holes at night. The covers shall be secured in place and be of sufficient strength to prevent livestock and wildlife from falling through or into any hole.

25. Prior to construction, GBPP shall conduct a cultural survey of any areas not previously surveyed (*e.g.,* new spur roads).

26. GBPP shall, within 45 days of securing easement of right-of-way on private land for the Project, erect and maintain signs providing public notice that the property is the site of future transmission line.

27. The construction planning for the Project encompasses providing city and county planning agencies with copies of all applicable CECs and other permits and licenses.

28. The planning and siting of the Project shall encompass placing all transmission structures a minimum of 100 feet from the edge of existing natural gas pipelines rights-of-way.

29. The construction planning for the Project shall encompass GBPP's compliance with the Standard Conditions attached to the BLM's Decision Record, attached as Exhibit D to the CEC Order docketed April 25, 2003.

30. This self-certification letter constitutes GBPP's compliance with item 30 of the CEC.

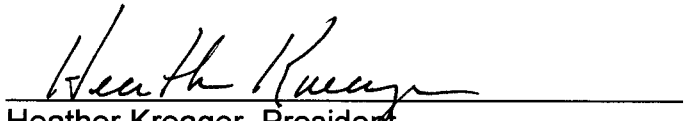
Any items of the CEC conditions not addressed in the above self-certification letter, as well as some conditions that are addressed, are part of the overall project plan, and will be included in the plan as required by the CEC document.

If you have any questions or comments, please contact the undersigned.

Regards,

GILA BEND POWER PARTNERS, LLC

By: Sammons Power Development, Inc.,
Its Managing Member

By: 
Heather Kreager, President

Enclosure

cc: Arizona Corporation Commission, Docket Control Center **Via Overnight Delivery**
Arizona Attorney General **Via Overnight Delivery**
Directors, Arizona Department of Environmental Quality **Via Overnight Delivery**
Department of Commerce Energy Office **Via Overnight Delivery**
Arizona Corporation Commission, Compliance Section **Via Overnight Delivery**

Decision #65866

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GILA BEND POWER PROJECT

2016
10-YEAR TRANSMISSION PLAN

Prepared for the:

ARIZONA CORPORATION COMMISSION
UTILITY DIVISION

BY: GILA BEND POWER PARTNERS, LLC

EXHIBIT 1

Report on the Gila Bend Power Partners, LLC.'s Generation Project System Impact Study

Prepared For the

Industrial Power Technology

And

Palo Verde E & O Committee

By

James C. Hsu

Salt River Project

November 1, 2001

Version (C)

Gila Bend Power Partners Generation Project
System Impact Study Report

I. Introduction

Industrial Power Technology (IPT), on behalf of the Gila Bend Power Partners, LLC (GBPP) has requested Salt River Project (SRP) to perform a system impact study that will assist GBPP in the determination of the Palo Verde transmission system and the WSCC interconnected system impact of interconnecting the proposed GBPP Generation Project with the another proposed Panda Gila River Generation Project's planned Gila River-Jojoba 500 kV double circuit lines. These double circuit 500 kV lines will be tied to the existing Hassayampa-Kyrene 500 kV line. Currently, GBPP has proposed to build a combined cycle power plant of 833 MW in addition to the 2080 MW of new generation power plant proposed by the Gila River Panda Project (Panda) in the same vicinity. In response to this request, SRP has carried out the study work accordingly, and documented the study results in this brief report.

For this analysis, the proposed size of the GBPP project was assumed to be 833 MW. Coincident with the development of the GBPP project, a separate generation proposal called the Gila River Panda Project (2080 MW) is also being developed and it will be interconnected to the Palo Verde transmission system via a double circuit 500kV line from the Gila River generation site to Jojoba, a new switchyard that is being developed to interconnect the two 500kV lines with the existing Palo Verde – Kyrene 500kV line. The GBPP project will interconnect with the system via a new, single circuit 500kV line to Watermelon substation, a new switchyard the GBPP plans to build, located approximately 2 miles from the Gila River Power facility. The Gila River – Jojoba 500kV lines will be looped into the Watermelon switchyard. SRP's system analysis assessed the system impact of both the Gila River Panda and GBPP generation projects on the interconnected WSCC system.

SRP's analysis focused on the capability of the Palo Verde area transmission system to deliver a total of 2913 MW of new generation from both proposed projects (GBPP and Gila River Panda) into the interconnected system. The scope of the study was to identify any significant system impacts that may be caused by interconnecting the GBPP generation project with the Jojoba-Gila River double circuit 500 kV lines, the Hassayampa-Kyrene 500 kV line, and their associated switchyards. This study did not identify any mitigation measures that may be required as a result of system impacts attributable to the GBPP Generation Project. Therefore, neither a preliminary plan of service nor a cost estimate for interconnecting the Proposed Generation Project with the existing and planned 500 kV transmission system was provided.

The purpose of this System Study was to assess the impact of the GBPP project on the Palo Verde transmission and the integrated WSCC EHV transmission system. The study is comprised of limited power flow and stability studies, but does not include any short circuit, post-transient power flow or subsynchronous resonance studies. Any conclusions presented from this System Impact Study represent the opinion of SRP and not necessarily the opinion of the Palo Verde Transmission System Engineering and Operating Committee.

The following two transmission configurations were assessed in this analysis:

Configuration 1:

The GBPP Project will be interconnected to the planned Jojoba-Gila River 500 double circuit lines at a location approximately 2 miles from the Gila River 500 kV switchyard (Watermelon substation). This transmission configuration assumed that the Gila River Generating Project would install a 500/230 kV transformer at their Gila River substation to accommodate an interconnection of the existing Liberty-Gila Bend 230 kV line.

Configuration 2:

Configuration 2 represents the same 500 kV transmission configuration as Configuration 1, however, the 500/230 kV transformer at the Gila River 500kV substation was not modeled.

II. Review of Panda System Development and Pertinent Study Results

Included in the "Report on the Preliminary Study For the Palo Verde Interconnection" and "Report on the Panda Generation Project Sensitivity Study', some technical study results pertinent to the Panda Generation Project and the impact assessment of its system development were documented in a number of different sections throughout these reports. It should be pointed out that these study results varied depending upon the system conditions, system models and the Panda's transmission network used in those studies. The following table summarizes the study results, associated information, and specific references from these reports.

New Generation Accommodated	Panda Interconnection To Palo Verde	Panda 500/230 KV Transformer	Transmission Constraint	Reference
4,850 MW (Including Panda 1250 MW & PDE 550 MW GEN)	Panda Project Looping in & out of PV-KY line	No	Thermal and Stability	PV Interconnection Study Report Section.III.B2 (Pg.27) Exhbit.2
5,240 MW (Including Panda 1640 MW & PDE 550 MW GEN)	Building Jojoba-Panda 500 KV double circuit lines and Jojoba cutting into PV-Kyrene line	Yes (with 390 MW flow)	Thermal and Stability	Panda Project Sensitivity Study Report Section III.1&2 (Pg.4) Tables PF-7 & TS-15

These previous study results revealed the following observations:

1. For the 2003 heavy summer condition with the addition of Palo Verde-Estrella line, "New Generation" in the amount of 4,850 MW can be accommodated by the Palo Verde transmission system without installation of a Panda 500/230 kV transformer.
2. Approximately 390 MW increase in the Panda Gila River Generation Plant output can be dispatched if the Panda project is interconnected with the Arizona local 230 kV transmission system by installing a 500/230 kV transformer.
3. The Palo Verde transmission thermal limits were constrained by the respective continuous rating of either the Hassayampa-N. Gila 500 kV line or the Hassayampa-Kyrene 500 kV line.
4. The Palo Verde stability limit was determined by a three-phase fault on the Palo Verde 500 kV bus and a subsequent loss of both Palo Verde-Westwing 500 kV lines.

As mentioned in the summary table above, the Panda sensitivity studies were performed based on the following assumptions:

1. The Panda Gila River Generation Project (Panda Gen) was the only project to interconnect with the Hassayampa-Kyrene 500 kV line.
2. The GBPP Generation Project was interconnected to the Hassayampa 500 kV Switchyard via a single circuit 500 kV line.
3. The generation output for the Panda Gen and GBPP projects were not maximized. The Panda Gen Project was dispatched in the ranges of 1250 MW to 1640 MW and PDE Gen Project was dispatched at 550 MW.

The current plan, as proposed by GBPP, is to interconnect with the Jojoba-Gila River 500 kV double circuit lines at an intersection about 2 miles north of the Gila River 500 kV Switchyard (Watermelon). Given these modifications in system representation, it was necessary to perform additional study work to assess the impact of these system modifications on the Palo Verde and the interconnected WSCC system with an emphasis on dispatching the maximum generation for both Panda Gen Project (2080 MW) and GBPP Generation Project (833 MW).

III. Conclusions

Based on the results of this impact study, the following was concluded:

1. The maximum generation that can be scheduled out of the Gila River vicinity to the Arizona and California load centers is a function of the capability of some of the Palo Verde transmission system components. This transmission capability is based on a thermal limitations on either the Hassayampa- N. Gila line 500 kV line or the Hassayampa-Kyrene 500 kV line.

a) The maximum GBPP generation that can be accommodated by the Configuration 1 transmission system (without Panda 500/230 kV transformer) is about 583 MW if the Panda Gila River generation is maximized at 2080 MW output.

b) The maximum new GBPP generation can be increased to 683 MW for the Configuration 2 transmission system (with Panda 500/230 kV transformer) if the Panda generation was still at its maximum output of 2080 MW.

2. The interconnection of the proposed GBPP Generation Project with the respective amount of power schedule noted in 1.a and 1.b above will not have any adverse impact on the Palo Verde Nuclear Plant, its associated transmission system, and the WSCC interconnected system.

3 The common corridor outage for a simultaneous loss of both Jojoba-Gila River double circuit 500 kV lines and a subsequent trip of combined maximum generation output (a total of 2911 MW) will not cause a stability problem. The interconnected transmission system can withstand such critical outage without causing wide spread cascading outages. The consequence of this double circuit outage is comparable to the result of a simultaneous trip of two Palo Verde generators. Both double contingencies are acceptable and meet the WSCC Performance Criteria Level C.

4. The stability performance resulting from a three-phase fault on the Palo Verde 500 kV bus and fault cleared by loss of both two Palo Verde-Westwing 500 kV lines became less severe due to power flow displacement for these two critical lines when more Panda and GBPP generation was dispatched at the Gila River location, which is further away from the Palo Verde vicinity.

IV. Discussion on Study Results

(A) Power Flow Impact

The following technical discussion is based on the various system conditions studied and demonstrate no adverse power flow impact on the Palo Verde and the Southwest interconnected transmission system due to the Gila River interconnection of the GBPP Generation Project.

1. **Configuration 1 (Without Panda 500/230 kV Connection):**

(See PF-TABLE 1)

Benchmark System (Without GBPP Project):

For base case conditions, that included accommodation of new generation of 4,650 MW by the Palo Verde transmission system, the heaviest loadings on both the Hassayampa-N. Gila and Jojoba-Kyrene 500 kV lines were occurred. They were reached at 100.5% and 100.4% of their continuous ratings, respectively. Neither N-1 contingency problems nor low system voltages were noted.

Post-GBPP System (With GBPP Project):

For base case conditions with 4,650 MW of new generation that included the power schedule of 833 MW of GBPP generation and 2080 MW of Panda Gila River generation to deliver to the Palo Verde transmission system, the heaviest loadings on both the Hassayampa-N. Gila and Jojoba-Kyrene 500 kV lines occurred. Flow on these lines reached 100.6% and 106.4% of their continuous ratings, respectively. A slight overload also occurred on the remaining Jojoba-Gila River Tap 500 kV line (101.1% of its emergency rating) for loss of one Jojoba-Gila River Tap 500 kV line.

Further studies indicated that these overloading problems could be overcome if the GBPP generation output was reduced to 583 MW. As a result, the loading on the Jojoba-Kyrene 500 kV line was reduced to 100.3% of its continuous rating. The remaining Gila River Tap-Jojoba 500 kV line loading was reduced to 91.5% of its emergency rating for a loss of one Gila River Tap-Jojoba 500 kV line.

1. **Configuration 2 (With Panda 500/230 kV Connection):**

(See PF-TABLE 2)

Benchmark System (Without GBPP Project):

For base case conditions, that included accommodation of new generation of 5,040 MW by the Palo Verde 500 kV and local 230 kV transmission systems, the heaviest loadings on both the Hassayampa-N. Gila and Jojoba-Kyrene 500 kV lines occurred. Flows on these lines reached 100.1% and 100.0% of their continuous ratings, respectively. No N-1 contingency problems or low system voltages were noted.

Post-GBPP System (With GBPP Project):

For base case conditions with 5,070 MW of new generation that included the power schedule of 833 MW of GBPP generation and 2080 MW of Panda Gila River generation to deliver to the Palo Verde 500 kV and local 230 kV transmission systems, the heaviest loadings on both the Hassayampa-N. Gila and Jojoba-Kyrene 500 kV lines occurred. They reached 100.2% and 104.6% of their continuous ratings, respectively. No overload occurred on the remaining Jojoba-Gila River Tap 500 kV line (84.1% of its emergency rating) for loss of one Jojoba-Gila River Tap 500 kV line. No voltage problems were detected for any N-1 contingencies.

Further studies indicated that this overloading problem could be overcome if the GBPP generation output was reduced to 683 MW. As a result, the loading on the Jojoba-Kyrene 500 kV line was reduced to 100.3% of its continuous rating. The remaining Gila River Tap-Jojoba 500 kV line loading was reduced to 79.0% of its emergency rating for a loss of one Gila River Tap-Jojoba 500 kV line.

(B) Transient Stability Impact

The stability analysis based on the following various system conditions indicated that no adverse impact on the Palo Verde plant stability and the integrated WSCC transmission system due to the interconnection of the GBPP Generation Project to the Palo Verde transmission system.

1. **Configuration 1 (Without Panda 500/230 kV Connection):**

(See TS-TABLE 1)

Benchmark System (Without GBPP Gen Project):

The following three N-2 contingency outages were established for stability benchmark performance using the pre-GBPP Project power flow limit case:

(a) Three-phase fault at the Jojoba 500 kV bus with outage of two Jojoba-Gila River 500 kV lines and a subsequent trip Panda generation of 2080 MW

(b) A simultaneous trip of two Palo Verde generators (loss of 2909 MW generation)

(c) Three-phase fault at the Palo Verde 500 kV bus with outage of two Palo Verde-Westwing 500 kV lines

For the Pre-GBPP Project benchmark system, the stability results showed that all three N-2 contingency outages were stable and damped. The worst case was a simultaneous loss of two Palo Verde generators (loss of 2809 MW generation). This case resulted in a maximum transient voltage dip of 0.86 P.U. (22% deviation) at the Malin 500 kV bus. The next worst case was a three-phase fault at the Palo Verde 500 kV bus and fault cleared by the loss of two Palo Verde-Westwing 500 kV circuits. This case resulted in maximum voltage dips of 0.91 P.U. (15% deviation) and 0.92 P.U. (16% deviation) respectively, at the Palo Verde and Malin 500 kV buses. The least critical case was a three-phase fault at the Jojoba 500 kV bus with outage of two Jojoba-Gila River 500 kV circuits and a subsequent trip of 2080 MW of Panda generation. This case caused a maximum transient voltage dip of 0.95 P.U. (13% deviation) at the Malin 500 kV bus.

Post-GBPP(833 MW) Project System (With GBPP Project):

All three contingency outages simulated for the Pre-Project system were also tested in the Post-Project system. All stability results were stable and damped. The worst case was a three-phase fault at the Jojoba 500 kV bus with outage of two Jojoba-Gila River 500 kV circuits and a subsequent trip of about 2900 MW of combined Panda and GBPP generation. This case resulted in a maximum transient voltage dip of 0.81 P.U. (27% deviation) at the Malin 500 kV bus. The next worst case was a simultaneous loss of two Palo Verde generators (loss of 2809 MW generation). This case resulted in a maximum transient voltage dip of 0.86 P.U. (22% deviation) at the Malin 500 kV bus. The least critical case was a three-phase fault at the Palo Verde 500 kV bus with fault cleared by the loss of two Palo Verde-Westwing 500 kV circuits. This case resulted in maximum voltage dips of 0.95 P.U. (11% deviation) and 0.98 P.U. (10% deviation) respectively, at the Palo Verde and Malin 500 kV buses.

2. **Configuration 2 (With Panda 500/230 kV Connection):**

(See TS-TABLE 2)

Benchmark System (Without GBPP Project):

The following three N-2 contingency outages were established for stability benchmark performance using the pre-GBPP Project power flow limit case:

(a) Three-phase fault at the Jojoba 500 kV bus with outage of two Jojoba-Gila River 500 kV lines and a subsequent trip Panda generation of 1560 MW

(b) A simultaneous trip of two Palo Verde generators (loss of 2809 MW generation)

(c) Three-phase fault at the Palo Verde 500 kV bus with outage of two Palo Verde-Westwing 500 kV lines

For the Pre-GBPP Project benchmark system, the stability results showed that all three N-2 contingency outages were stable and damped. The worst case was a simultaneous loss of two Palo Verde generators (loss of 2809 MW generation). This case resulted in a maximum transient voltage dip of 0.86 P.U. (22% deviation) at the Malin 500 kV bus. The next worst case was a three-phase fault at the Palo Verde 500 kV bus and fault cleared by the loss of two Palo Verde-Westwing 500 kV circuits. This case resulted in maximum voltage dips of 0.95 P.U. (11% deviation) and 0.98 P.U. (10% deviation) respectively, at the Palo Verde and Malin 500 kV buses. The least critical case was a three-phase fault at the Jojoba 500 kV bus with outage of two Jojoba-Gila River 500 kV circuits and a subsequent trip of 1560 MW of Panda generation. This case caused a maximum transient voltage dip of 0.98 P.U. (13% deviation) at the Malin 500 kV bus.

Post-GBPP(833 MW) Project System (With GBPP Project):

All three contingency outages simulated for the Pre-Project system were also tested in the Post-Project system. All stability results were stable and damped. The worst case was a simultaneous loss of two Palo Verde generators (loss of 2809 MW). This case resulted in a maximum transient voltage dip of 0.86 P.U. (22% deviation) at the Malin 500 kV bus. The next worst case was a three-phase fault at the Jojoba 500 kV bus with outage of two Jojoba-Gila River 500 kV circuits and a subsequent trip of about 2393 MW of combined Panda and GBPP generations. This case caused a maximum transient voltage dip of 0.90 P.U. (18% deviation) at the Malin 500 kV bus. The least critical case was a three-phase fault at the Palo Verde 500 kV bus with fault cleared by the loss of two Palo Verde-Westwing 500 kV circuits. This case resulted in maximum voltage dips of 0.95 P.U. (11% deviation) and 0.98 P.U. (10% deviation) respectively, at the Palo Verde and Malin 500 kV buses.

V. Exhibit

Exhibit 1 shows a one-line system diagram of transmission alternatives associated with the GBPP interconnection.

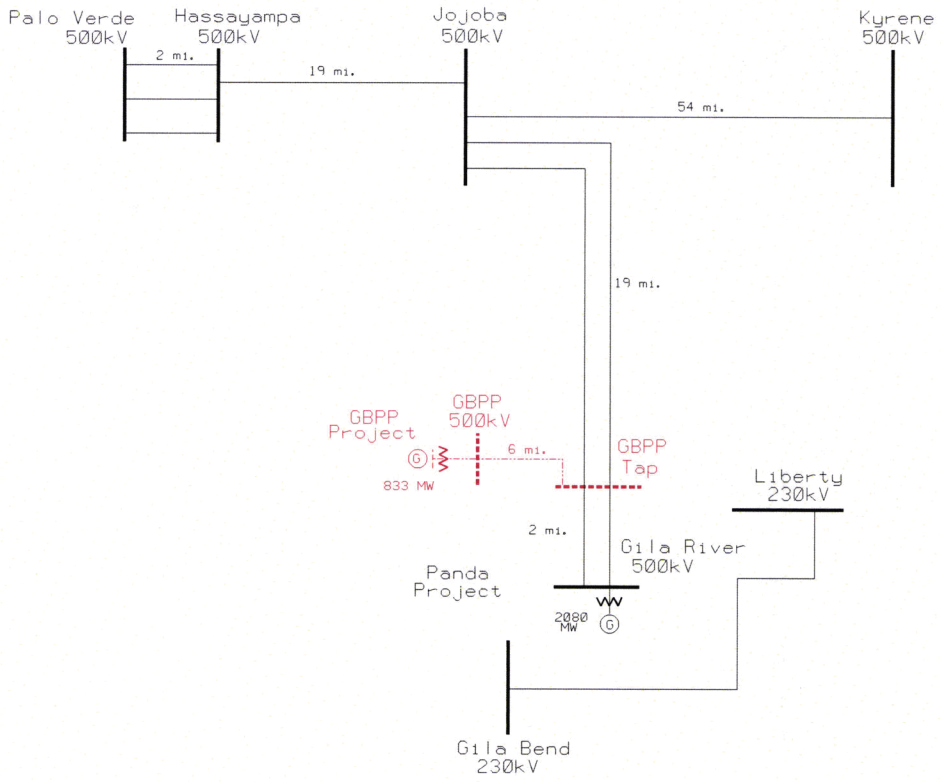
VI. Summary Tables of Study Results

(The attached tables summarize the study results)

1. PF-Table 1: Power Flow Impact With And Without GBPP (833 MW) Project (Without the Panda Gila River 500/230 KV Transformer)
2. TS-Table1: Stability Impact With And Without GBPP (833 MW) Project (Without the Panda Gila River 500/230 KV Transformer)
3. PF-Table 2: Power Flow Impact With And Without GBPP (833 MW) Project (With the Panda Gila River 500/230 KV Transformer)
2. TS-Table 2: Stability Impact With And Without GBPP (833 MW) Project (With the Panda Gila River 500/230 KV Transformer)

GILA BEND POWER PARTNERS (GBPP)
GENERATION PROJECT TRANSMISSION
ALTERNATIVE 1

Configuration 1: GBPP Project w/o Panda 500/230KV Transformer



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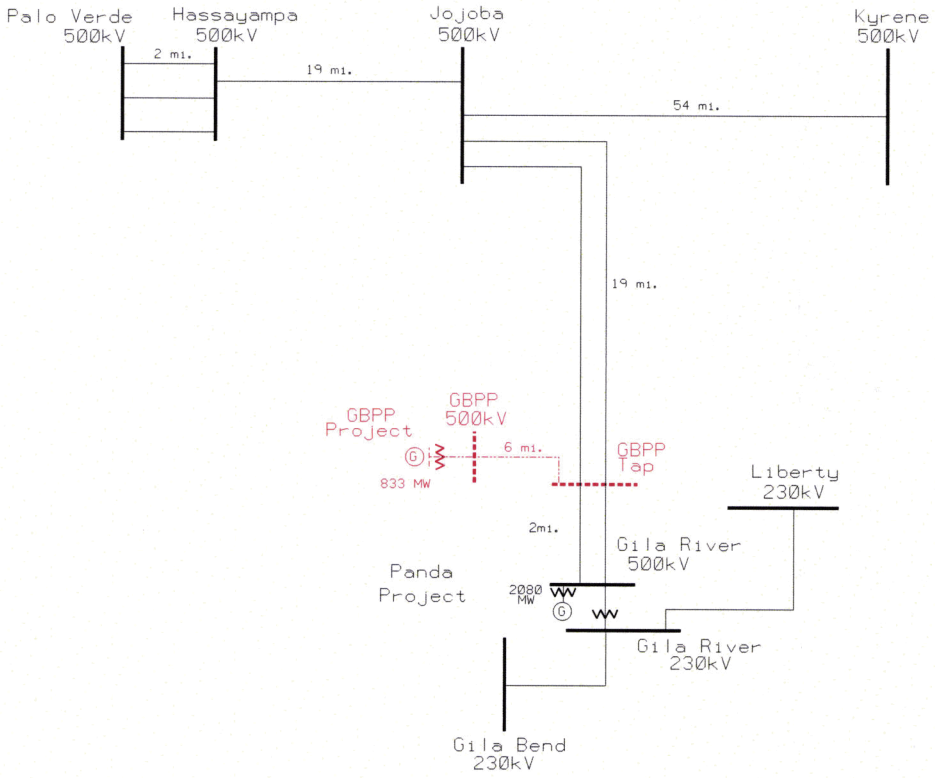
GILA BEND POWER PARTNERS (GBPP)
GENERATION PROJECT TRANSMISSION
ALTERNATIVE 2

Configuration 2: GBPP Project w/ Panda 500/230KV Transformer



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GILA BEND POWER PARTNERS, LLC
5949 Sherry Lane, Suite 1900
Dallas, Texas 75225-6553
Telephone: (214) 210-5000
Facsimile: (214) 210-5087

February 25, 2016

Via Overnight Delivery

Arizona Corporation Commission
Utilities Division Director
1200 West Washington Street
Phoenix, Arizona 85007
Attention: Director

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12. The construction planning for the Project shall include the engagement of a qualified biologist to monitor ground clearing and disruptive construction activities in areas where sensitive species occur and shall bear the responsibility for ensuring proper actions are taken if a special status species is encountered.

13. Applicant will comply with Arizona's Native Plant Law and notify the Arizona Department of Agriculture no later than 60 days prior to the start of construction.

14. GBPP shall continue to consult with the State Historic Preservation Office (SHPO) to reach a determination of any cultural resource impacts. GBPP shall implement any impact avoidance and mitigation measures for cultural resources developed in consultation with the BLM and the SHPO on land under BLM's jurisdiction and with ASLD on land under ASLD's jurisdiction, and shall also work with BLM to ensure that BLM consults with the Hopi Tribe as requested in the Hopi Tribe's letter of June 6, 2002.

15. The construction planning for the Project shall encompass procedures that will avoid or minimize impacts to properties considered eligible for inclusion in the State and National Register of Historic Places to the extent possible. If human remains and/or funerary objects are encountered during the course of any ground-disturbing activities relating to the development of the subject property, GBPP shall cease work on the affected area of the Project and notify the Director of the Arizona State Museum or the BLM.

16. The construction planning for the Project shall encompass consultation with SHPO and any applicable land-managing agency, to consider and assess potential direct and indirect impacts to eligible properties related to new access roads or any existing access roads that require blading.

17. The construction planning for the Project shall encompass GBPP's use of existing access roads along the Palo Verde-Kyrene line for construction and maintenance access and only build spur roads for access to new structures.

18. The construction planning for the Project shall encompass GBPP restricting all construction vehicle movement outside of the right-of-way to pre-designated access, contractor acquired access or public roads.

19. Post construction activity. Currently inapplicable.

20. Post construction activity. Currently inapplicable.

21. Post construction activity. Currently inapplicable.

22. Post construction activity. Currently inapplicable.

23. GBPP construction contracts will require the contractor to be instructed on the protection of cultural and ecological resources and such contracts will address federal and state laws regarding antiquities and plants and wildlife, including collection and removal.

24. The construction planning for the Project shall encompass procedures and requirements for covering construction holes at night. The covers shall be secured in place and be of sufficient strength to prevent livestock and wildlife from falling through or into any hole.

25. Prior to construction, GBPP shall conduct a cultural survey of any areas not previously surveyed (*e.g.,* new spur roads).

26. GBPP shall, within 45 days of securing easement of right-of-way on private land for the Project, erect and maintain signs providing public notice that the property is the site of future transmission line.

27. The construction planning for the Project encompasses providing city and county planning agencies with copies of all applicable CECs and other permits and licenses.

28. The planning and siting of the Project shall encompass placing all transmission structures a minimum of 100 feet from the edge of existing natural gas pipelines rights-of-way.

29. The construction planning for the Project shall encompass GBPP's compliance with the Standard Conditions attached to the BLM's Decision Record, attached as Exhibit D to the CEC Order docketed April 25, 2003.

30. This self-certification letter constitutes GBPP's compliance with item 30 of the CEC.

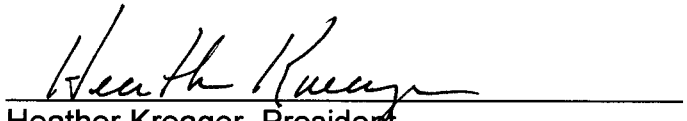
Any items of the CEC conditions not addressed in the above self-certification letter, as well as some conditions that are addressed, are part of the overall project plan, and will be included in the plan as required by the CEC document.

If you have any questions or comments, please contact the undersigned.

Regards,

GILA BEND POWER PARTNERS, LLC

By: Sammons Power Development, Inc.,
Its Managing Member

By: 
Heather Kreager, President

Enclosure

cc: Arizona Corporation Commission, Docket Control Center **Via Overnight Delivery**
Arizona Attorney General **Via Overnight Delivery**
Directors, Arizona Department of Environmental Quality **Via Overnight Delivery**
Department of Commerce Energy Office **Via Overnight Delivery**
Arizona Corporation Commission, Compliance Section **Via Overnight Delivery**

Decision #65866

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GILA BEND POWER PROJECT

2016
10-YEAR TRANSMISSION PLAN

Prepared for the:

ARIZONA CORPORATION COMMISSION
UTILITY DIVISION

BY: GILA BEND POWER PARTNERS, LLC

EXHIBIT 1

Report on the Gila Bend Power Partners, LLC.'s Generation Project System Impact Study

Prepared For the

Industrial Power Technology

And

Palo Verde E & O Committee

By

James C. Hsu

Salt River Project

November 1, 2001

Version (C)

Gila Bend Power Partners Generation Project
System Impact Study Report

I. Introduction

Industrial Power Technology (IPT), on behalf of the Gila Bend Power Partners, LLC (GBPP) has requested Salt River Project (SRP) to perform a system impact study that will assist GBPP in the determination of the Palo Verde transmission system and the WSCC interconnected system impact of interconnecting the proposed GBPP Generation Project with the another proposed Panda Gila River Generation Project's planned Gila River-Jojoba 500 kV double circuit lines. These double circuit 500 kV lines will be tied to the existing Hassayampa-Kyrene 500 kV line. Currently, GBPP has proposed to build a combined cycle power plant of 833 MW in addition to the 2080 MW of new generation power plant proposed by the Gila River Panda Project (Panda) in the same vicinity. In response to this request, SRP has carried out the study work accordingly, and documented the study results in this brief report.

For this analysis, the proposed size of the GBPP project was assumed to be 833 MW. Coincident with the development of the GBPP project, a separate generation proposal called the Gila River Panda Project (2080 MW) is also being developed and it will be interconnected to the Palo Verde transmission system via a double circuit 500kV line from the Gila River generation site to Jojoba, a new switchyard that is being developed to interconnect the two 500kV lines with the existing Palo Verde – Kyrene 500kV line. The GBPP project will interconnect with the system via a new, single circuit 500kV line to Watermelon substation, a new switchyard the GBPP plans to build, located approximately 2 miles from the Gila River Power facility. The Gila River – Jojoba 500kV lines will be looped into the Watermelon switchyard. SRP's system analysis assessed the system impact of both the Gila River Panda and GBPP generation projects on the interconnected WSCC system.

SRP's analysis focused on the capability of the Palo Verde area transmission system to deliver a total of 2913 MW of new generation from both proposed projects (GBPP and Gila River Panda) into the interconnected system. The scope of the study was to identify any significant system impacts that may be caused by interconnecting the GBPP generation project with the Jojoba-Gila River double circuit 500 kV lines, the Hassayampa-Kyrene 500 kV line, and their associated switchyards. This study did not identify any mitigation measures that may be required as a result of system impacts attributable to the GBPP Generation Project. Therefore, neither a preliminary plan of service nor a cost estimate for interconnecting the Proposed Generation Project with the existing and planned 500 kV transmission system was provided.

The purpose of this System Study was to assess the impact of the GBPP project on the Palo Verde transmission and the integrated WSCC EHV transmission system. The study is comprised of limited power flow and stability studies, but does not include any short circuit, post-transient power flow or subsynchronous resonance studies. Any conclusions presented from this System Impact Study represent the opinion of SRP and not necessarily the opinion of the Palo Verde Transmission System Engineering and Operating Committee.

The following two transmission configurations were assessed in this analysis:

Configuration 1:

The GBPP Project will be interconnected to the planned Jojoba-Gila River 500 double circuit lines at a location approximately 2 miles from the Gila River 500 kV switchyard (Watermelon substation). This transmission configuration assumed that the Gila River Generating Project would install a 500/230 kV transformer at their Gila River substation to accommodate an interconnection of the existing Liberty-Gila Bend 230 kV line.

Configuration 2:

Configuration 2 represents the same 500 kV transmission configuration as Configuration 1, however, the 500/230 kV transformer at the Gila River 500kV substation was not modeled.

II. Review of Panda System Development and Pertinent Study Results

Included in the "Report on the Preliminary Study For the Palo Verde Interconnection" and "Report on the Panda Generation Project Sensitivity Study', some technical study results pertinent to the Panda Generation Project and the impact assessment of its system development were documented in a number of different sections throughout these reports. It should be pointed out that these study results varied depending upon the system conditions, system models and the Panda's transmission network used in those studies. The following table summarizes the study results, associated information, and specific references from these reports.

New Generation Accommodated	Panda Interconnection To Palo Verde	Panda 500/230 KV Transformer	Transmission Constraint	Reference
4,850 MW (Including Panda 1250 MW & PDE 550 MW GEN)	Panda Project Looping in & out of PV-KY line	No	Thermal and Stability	PV Interconnection Study Report Section.III.B2 (Pg.27) Exhbit.2
5,240 MW (Including Panda 1640 MW & PDE 550 MW GEN)	Building Jojoba-Panda 500 KV double circuit lines and Jojoba cutting into PV-Kyrene line	Yes (with 390 MW flow)	Thermal and Stability	Panda Project Sensitivity Study Report Section III.1&2 (Pg.4) Tables PF-7 & TS-15

These previous study results revealed the following observations:

1. For the 2003 heavy summer condition with the addition of Palo Verde-Estrella line, "New Generation" in the amount of 4,850 MW can be accommodated by the Palo Verde transmission system without installation of a Panda 500/230 kV transformer.
2. Approximately 390 MW increase in the Panda Gila River Generation Plant output can be dispatched if the Panda project is interconnected with the Arizona local 230 kV transmission system by installing a 500/230 kV transformer.
3. The Palo Verde transmission thermal limits were constrained by the respective continuous rating of either the Hassayampa-N. Gila 500 kV line or the Hassayampa-Kyrene 500 kV line.
4. The Palo Verde stability limit was determined by a three-phase fault on the Palo Verde 500 kV bus and a subsequent loss of both Palo Verde-Westwing 500 kV lines.

As mentioned in the summary table above, the Panda sensitivity studies were performed based on the following assumptions:

1. The Panda Gila River Generation Project (Panda Gen) was the only project to interconnect with the Hassayampa-Kyrene 500 kV line.
2. The GBPP Generation Project was interconnected to the Hassayampa 500 kV Switchyard via a single circuit 500 kV line.
3. The generation output for the Panda Gen and GBPP projects were not maximized. The Panda Gen Project was dispatched in the ranges of 1250 MW to 1640 MW and PDE Gen Project was dispatched at 550 MW.

The current plan, as proposed by GBPP, is to interconnect with the Jojoba-Gila River 500 kV double circuit lines at an intersection about 2 miles north of the Gila River 500 kV Switchyard (Watermelon). Given these modifications in system representation, it was necessary to perform additional study work to assess the impact of these system modifications on the Palo Verde and the interconnected WSCC system with an emphasis on dispatching the maximum generation for both Panda Gen Project (2080 MW) and GBPP Generation Project (833 MW).

III. Conclusions

Based on the results of this impact study, the following was concluded:

1. The maximum generation that can be scheduled out of the Gila River vicinity to the Arizona and California load centers is a function of the capability of some of the Palo Verde transmission system components. This transmission capability is based on a thermal limitations on either the Hassayampa- N. Gila line 500 kV line or the Hassayampa-Kyrene 500 kV line.

a) The maximum GBPP generation that can be accommodated by the Configuration 1 transmission system (without Panda 500/230 kV transformer) is about 583 MW if the Panda Gila River generation is maximized at 2080 MW output.

b) The maximum new GBPP generation can be increased to 683 MW for the Configuration 2 transmission system (with Panda 500/230 kV transformer) if the Panda generation was still at its maximum output of 2080 MW.

2. The interconnection of the proposed GBPP Generation Project with the respective amount of power schedule noted in 1.a and 1.b above will not have any adverse impact on the Palo Verde Nuclear Plant, its associated transmission system, and the WSCC interconnected system.

3 The common corridor outage for a simultaneous loss of both Jojoba-Gila River double circuit 500 kV lines and a subsequent trip of combined maximum generation output (a total of 2911 MW) will not cause a stability problem. The interconnected transmission system can withstand such critical outage without causing wide spread cascading outages. The consequence of this double circuit outage is comparable to the result of a simultaneous trip of two Palo Verde generators. Both double contingencies are acceptable and meet the WSCC Performance Criteria Level C.

4. The stability performance resulting from a three-phase fault on the Palo Verde 500 kV bus and fault cleared by loss of both two Palo Verde-Westwing 500 kV lines became less severe due to power flow displacement for these two critical lines when more Panda and GBPP generation was dispatched at the Gila River location, which is further away from the Palo Verde vicinity.

IV. Discussion on Study Results

(A) Power Flow Impact

The following technical discussion is based on the various system conditions studied and demonstrate no adverse power flow impact on the Palo Verde and the Southwest interconnected transmission system due to the Gila River interconnection of the GBPP Generation Project.

1. **Configuration 1 (Without Panda 500/230 kV Connection):**

(See PF-TABLE 1)

Benchmark System (Without GBPP Project):

For base case conditions, that included accommodation of new generation of 4,650 MW by the Palo Verde transmission system, the heaviest loadings on both the Hassayampa-N. Gila and Jojoba-Kyrene 500 kV lines were occurred. They were reached at 100.5% and 100.4% of their continuous ratings, respectively. Neither N-1 contingency problems nor low system voltages were noted.

Post-GBPP System (With GBPP Project):

For base case conditions with 4,650 MW of new generation that included the power schedule of 833 MW of GBPP generation and 2080 MW of Panda Gila River generation to deliver to the Palo Verde transmission system, the heaviest loadings on both the Hassayampa-N. Gila and Jojoba-Kyrene 500 kV lines occurred. Flow on these lines reached 100.6% and 106.4% of their continuous ratings, respectively. A slight overload also occurred on the remaining Jojoba-Gila River Tap 500 kV line (101.1% of its emergency rating) for loss of one Jojoba-Gila River Tap 500 kV line.

Further studies indicated that these overloading problems could be overcome if the GBPP generation output was reduced to 583 MW. As a result, the loading on the Jojoba-Kyrene 500 kV line was reduced to 100.3% of its continuous rating. The remaining Gila River Tap-Jojoba 500 kV line loading was reduced to 91.5% of its emergency rating for a loss of one Gila River Tap-Jojoba 500 kV line.

1. **Configuration 2 (With Panda 500/230 kV Connection):**

(See PF-TABLE 2)

Benchmark System (Without GBPP Project):

For base case conditions, that included accommodation of new generation of 5,040 MW by the Palo Verde 500 kV and local 230 kV transmission systems, the heaviest loadings on both the Hassayampa-N. Gila and Jojoba-Kyrene 500 kV lines occurred. Flows on these lines reached 100.1% and 100.0% of their continuous ratings, respectively. No N-1 contingency problems or low system voltages were noted.

Post-GBPP System (With GBPP Project):

For base case conditions with 5,070 MW of new generation that included the power schedule of 833 MW of GBPP generation and 2080 MW of Panda Gila River generation to deliver to the Palo Verde 500 kV and local 230 kV transmission systems, the heaviest loadings on both the Hassayampa-N. Gila and Jojoba-Kyrene 500 kV lines occurred. They reached 100.2% and 104.6% of their continuous ratings, respectively. No overload occurred on the remaining Jojoba-Gila River Tap 500 kV line (84.1% of its emergency rating) for loss of one Jojoba-Gila River Tap 500 kV line. No voltage problems were detected for any N-1 contingencies.

Further studies indicated that this overloading problem could be overcome if the GBPP generation output was reduced to 683 MW. As a result, the loading on the Jojoba-Kyrene 500 kV line was reduced to 100.3% of its continuous rating. The remaining Gila River Tap-Jojoba 500 kV line loading was reduced to 79.0% of its emergency rating for a loss of one Gila River Tap-Jojoba 500 kV line.

(B) Transient Stability Impact

The stability analysis based on the following various system conditions indicated that no adverse impact on the Palo Verde plant stability and the integrated WSCC transmission system due to the interconnection of the GBPP Generation Project to the Palo Verde transmission system.

1. **Configuration 1 (Without Panda 500/230 kV Connection):**

(See TS-TABLE 1)

Benchmark System (Without GBPP Gen Project):

The following three N-2 contingency outages were established for stability benchmark performance using the pre-GBPP Project power flow limit case:

(a) Three-phase fault at the Jojoba 500 kV bus with outage of two Jojoba-Gila River 500 kV lines and a subsequent trip Panda generation of 2080 MW

(b) A simultaneous trip of two Palo Verde generators (loss of 2909 MW generation)

(c) Three-phase fault at the Palo Verde 500 kV bus with outage of two Palo Verde-Westwing 500 kV lines

For the Pre-GBPP Project benchmark system, the stability results showed that all three N-2 contingency outages were stable and damped. The worst case was a simultaneous loss of two Palo Verde generators (loss of 2809 MW generation). This case resulted in a maximum transient voltage dip of 0.86 P.U. (22% deviation) at the Malin 500 kV bus. The next worst case was a three-phase fault at the Palo Verde 500 kV bus and fault cleared by the loss of two Palo Verde-Westwing 500 kV circuits. This case resulted in maximum voltage dips of 0.91 P.U. (15% deviation) and 0.92 P.U. (16% deviation) respectively, at the Palo Verde and Malin 500 kV buses. The least critical case was a three-phase fault at the Jojoba 500 kV bus with outage of two Jojoba-Gila River 500 kV circuits and a subsequent trip of 2080 MW of Panda generation. This case caused a maximum transient voltage dip of 0.95 P.U. (13% deviation) at the Malin 500 kV bus.

Post-GBPP(833 MW) Project System (With GBPP Project):

All three contingency outages simulated for the Pre-Project system were also tested in the Post-Project system. All stability results were stable and damped. The worst case was a three-phase fault at the Jojoba 500 kV bus with outage of two Jojoba-Gila River 500 kV circuits and a subsequent trip of about 2900 MW of combined Panda and GBPP generation. This case resulted in a maximum transient voltage dip of 0.81 P.U. (27% deviation) at the Malin 500 kV bus. The next worst case was a simultaneous loss of two Palo Verde generators (loss of 2809 MW generation). This case resulted in a maximum transient voltage dip of 0.86 P.U. (22% deviation) at the Malin 500 kV bus. The least critical case was a three-phase fault at the Palo Verde 500 kV bus with fault cleared by the loss of two Palo Verde-Westwing 500 kV circuits. This case resulted in maximum voltage dips of 0.95 P.U. (11% deviation) and 0.98 P.U. (10% deviation) respectively, at the Palo Verde and Malin 500 kV buses.

2. **Configuration 2 (With Panda 500/230 kV Connection):**

(See TS-TABLE 2)

Benchmark System (Without GBPP Project):

The following three N-2 contingency outages were established for stability benchmark performance using the pre-GBPP Project power flow limit case:

(a) Three-phase fault at the Jojoba 500 kV bus with outage of two Jojoba-Gila River 500 kV lines and a subsequent trip Panda generation of 1560 MW

(b) A simultaneous trip of two Palo Verde generators (loss of 2809 MW generation)

(c) Three-phase fault at the Palo Verde 500 kV bus with outage of two Palo Verde-Westwing 500 kV lines

For the Pre-GBPP Project benchmark system, the stability results showed that all three N-2 contingency outages were stable and damped. The worst case was a simultaneous loss of two Palo Verde generators (loss of 2809 MW generation). This case resulted in a maximum transient voltage dip of 0.86 P.U. (22% deviation) at the Malin 500 kV bus. The next worst case was a three-phase fault at the Palo Verde 500 kV bus and fault cleared by the loss of two Palo Verde-Westwing 500 kV circuits. This case resulted in maximum voltage dips of 0.95 P.U. (11% deviation) and 0.98 P.U. (10% deviation) respectively, at the Palo Verde and Malin 500 kV buses. The least critical case was a three-phase fault at the Jojoba 500 kV bus with outage of two Jojoba-Gila River 500 kV circuits and a subsequent trip of 1560 MW of Panda generation. This case caused a maximum transient voltage dip of 0.98 P.U. (13% deviation) at the Malin 500 kV bus.

Post-GBPP(833 MW) Project System (With GBPP Project):

All three contingency outages simulated for the Pre-Project system were also tested in the Post-Project system. All stability results were stable and damped. The worst case was a simultaneous loss of two Palo Verde generators (loss of 2809 MW). This case resulted in a maximum transient voltage dip of 0.86 P.U. (22% deviation) at the Malin 500 kV bus. The next worst case was a three-phase fault at the Jojoba 500 kV bus with outage of two Jojoba-Gila River 500 kV circuits and a subsequent trip of about 2393 MW of combined Panda and GBPP generations. This case caused a maximum transient voltage dip of 0.90 P.U. (18% deviation) at the Malin 500 kV bus. The least critical case was a three-phase fault at the Palo Verde 500 kV bus with fault cleared by the loss of two Palo Verde-Westwing 500 kV circuits. This case resulted in maximum voltage dips of 0.95 P.U. (11% deviation) and 0.98 P.U. (10% deviation) respectively, at the Palo Verde and Malin 500 kV buses.

V. Exhibit

Exhibit 1 shows a one-line system diagram of transmission alternatives associated with the GBPP interconnection.

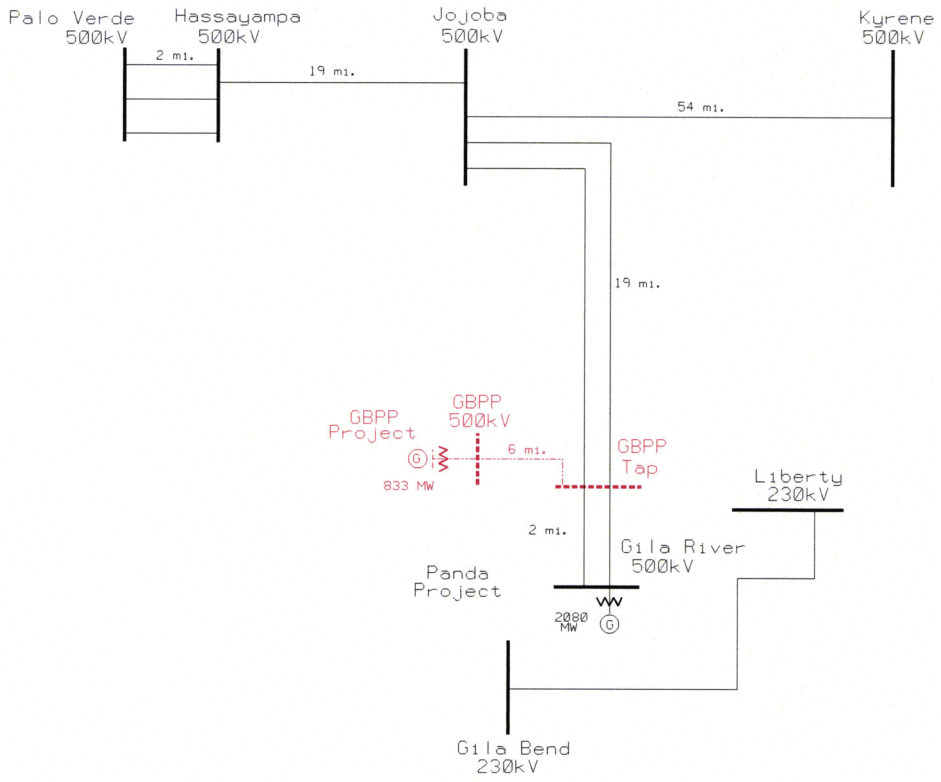
VI. Summary Tables of Study Results

(The attached tables summarize the study results)

1. PF-Table 1: Power Flow Impact With And Without GBPP (833 MW) Project (Without the Panda Gila River 500/230 KV Transformer)
2. TS-Table1: Stability Impact With And Without GBPP (833 MW) Project (Without the Panda Gila River 500/230 KV Transformer)
3. PF-Table 2: Power Flow Impact With And Without GBPP (833 MW) Project (With the Panda Gila River 500/230 KV Transformer)
2. TS-Table 2: Stability Impact With And Without GBPP (833 MW) Project (With the Panda Gila River 500/230 KV Transformer)

GILA BEND POWER PARTNERS (GBPP)
GENERATION PROJECT TRANSMISSION
ALTERNATIVE 1

Configuration 1: GBPP Project w/o Panda 500/230KV Transformer



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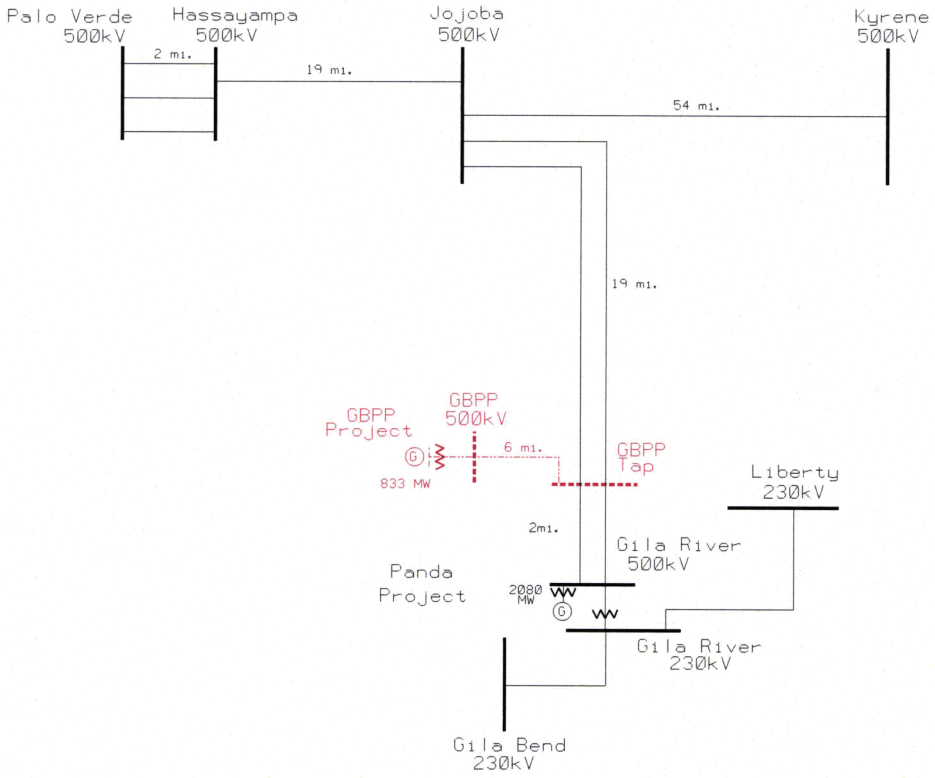
pde.dgn

GILA BEND POWER PARTNERS (GBPP)
GENERATION PROJECT TRANSMISSION
ALTERNATIVE 2

Configuration 2: GBPP Project w/ Panda 500/230KV Transformer



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PF-TABLE 1
POWER FLOW IMPACT WITH AND WITHOUT THE GBPP(833MW) GEN PROJECT
(WITHOUT THE PANDA GILA RIVER 500/230 KV TRANSFORMER)

BENCH MARK	CASE DESCRIPTION	EOR FLOW	GBPP GEN	PANDA GEN	PV GEN	NEW GEN	PANDA 500/230	PV-N.G.	PV-DV	PV-WWG#1	PV-WWG#2	JOJOBA KYR	GILA RV-JOJOBA1	PV-EST	PPK 230KV	KYR 230KV	COMMENTS
2003HS PDE-01	WITHOUT GBPP GEN PROJECT	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(PU)	(PU)	
	BASE CASE FLOW	**6022**	**0**	**2080**	**3991**	**4650**	**0**	**1263**	**1341**	**1528**	**1528**	**1784**	**1009**	**1182**	**1.03**	**1.01**	
	FACILITY RATING							**(AMP)**	**(AMP)**	**(AMP)**	**(AMP)**	**(AMP)**	**(AMP)**	**(AMP)**			
	CONTINUOUS RATING							1400	1900	3000	3000	2000	2100	2000	5% MAX	5% MAX	
	EMERGENCY RATING							1890	2430	3200	3200	2521	3150	2521			
	BASE CASE FLOW							**1407**	1477	1675	1675	**2008**	**1114**	1346	1.03	1.01	N-0 THERMAL LIMITATIONS
	% OF CONTINUOUS RATING							**100.50%**	77.70%	55.70%	55.70%	**100.40%**	55.10%	67.30%			
	OUTAGE CASE FLOW																
ALT A	ONE PALO VERDE-WWG OUT							1483	1607	OUT	2706	2262	1118	1586	1.02	1.00	NO PROBLEM
	% OF EMERGENCY RATING							78.50%	66.10%		84.60%	89.70%	35.50%	62.90%			
ALT B	PALO VERDE-ESTRELLA OUT							1458	1557	2113	2113	2397	1122	OUT	1.01	0.99	NO PROBLEM
	% OF EMERGENCY RATING							77.20%	64.10%	66.00%	66.00%	95.10%	35.60%				
ALT C	JOJOBA-KYRENE OUT							1496	1617	2330	2330	OUT	1102	1892	1.00	0.98	NO PROBLEM
	% OF EMERGENCY RATING							79.20%	66.60%	72.80%	72.80%		35.00%	75.10%			
ALT D	ONE JOJOB- GILA RIVER OUT							1407	1477	1676	1676	2008	2239	1348	1.03	1.01	NO PROBLEM
	% OF EMERGENCY RATING							74.40%	60.80%	52.40%	52.40%	79.70%	71.10%	53.50%			

2003HS-PDE-02	WITH GBPP GEN PROJECT	EOR FLOW	GBPP GEN	PANDA GEN	PV GEN	NEW GEN	PANDA 500/230	PV-N.G.	PV-DV	PV-WWG#1	PV-WWG#2	JOJOBA KYR	GILA RV-JOJOBA#1	PV-EST	PPK 230KV	KYR 230KV	COMMENTS
		(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(PU)	(PU)	
	BASE CASE FLOW	**6042**	**833**	**2080**	**3991**	**4650**	**0**	**1265**	**1343**	**1489**	**1489**	**1884**	**1431**	**1154**	**1.03**	**1.01**	
								(AMP)	**(AMP)**	**(AMP)**	**(AMP)**	**(AMP)**	**(AMP)**	**(AMP)**			
	BASE CASE FLOW							**1409**	**1479**	**1632**	**1632**	**2129**	**1588**	**1314**	1.03	1.01	EXCEEDS N-0 LIMITATION
	% OF CONTINUOUS RATING							100.60%	77.80%	54.40%	54.40%	106.40%	75.60%	65.70%			
	OUTAGE CASE FLOW																
ALT A	ONE PALO VERDE-WWG OUT							1483	1605	OUT	2637	2376	1592	1549	1.02	1.00	NO PROBLEM
	% OF EMERGENCY RATING							78.50%	66.10%		82.40%	94.30%	50.50%	61.40%			
ALT B	PALO VERDE-ESTRELLA OUT							1459	1557	2060	2060	2509	1595	OUT	1.01	0.99	NO PROBLEM
	% OF EMERGENCY RATING							77.20%	64.10%	64.40%	64.40%	99.50%	50.60%				
ALT C	JOJOBA-KYRENE OUT							1506	1631	2328	2328	OUT	1577	1892	1.00	0.97	NO PROBLEM
	% OF EMERGENCY RATING							79.70%	66.60%	72.80%	72.80%		50.10%	75.10%			
ALT D	ONE JOJOB- GILA RIVER OUT							1409	1479	1634	1634	2129	**3183**	1316	1.03	1.00	EXCEEDS N-1 LIMITATION
	% OF EMERGENCY RATING							74.60%	60.90%	51.10%	51.10%	84.50%	**101.10%**	52.20%			
PDE-02R	**BASE CASE (IN MW)**	**6037**	**583**	**2080**	**3991**	**4400**	**0**	**1257**	**1330**	**1440**	**1440**	**1792**	**1308**	**1128**	**1.03**	**1.01**	
			(-250)			(-250)											
	BASE CASE FLOW(IN AMP)							**1400**	**1465**	**1578**	**1578**	**2007**	**1434**	**1285**	1.03	1.01	N-0 THERMAL LIMITATION
	% OF CONTINUOUS RATING							100.00%	77.10%	52.60%	52.60%	100.30%	68.80%	64.20%			
ALT D	ONE JOJOB- GILA RIVER OUT							1400	1465	1580	1580	2007	2894	1286	1.03	1.00	NO PROBLEM
	% OF EMERGENCY RATING							74.10%	60.30%	49.40%	49.40%	79.80%	91.50%	51.02%			

TS-TABLE 1

STABILITY IMPACT WITH AND WITHOUT THE GBPP(833 MW) GENERATION PROJECT

(WITHOUT THE PANDA GILA RIVER 500/230 KV TRANSFORMER)

	WITHOUT GBPP GEN PROJECT	POWER FLOW (MW)										STABILITY RESULTS		
CASE NO.	CASE DESCRIPTION	SCIT FLOW	EOR FLOW	COI FLOW	GBPP GEN	PANDA GEN	PVNG GEN	PVNG MARG	NEW GEN	PV /NEW TOT	PANDA 500/230	PV500 (P.U.)	MA500 (P.U.)	COMMENTS
2003HS	**BASE CASE** (2003HS-PDE-01)	**12201**	**6022**	**4205**	**0**	**2080**	**3991**	**0%**	**4650**	**8641**	**0**	**1.06**	**1.08**	
STAB-1	3 PH FLT @ JOJOBA 500KV BUS L/O TWO JOJOBA-GILA RIVER (TRIP PANDA GENERATION OF 2080 MW)											1.03 3% Dip	0.95 13% Dip	STABLE & DAMPED
STAB-2	L/O TWO PALO VERDE UNITS (TRIP A TOTAL OF 2809 MW GEN)											1.04 2% DIP	0.86 22% DIP	STABLE & DAMPED
STAB-3	3 PH FLT @ PV 500 KV BUS L/O TWO PV-WWG											0.91 15% Dip	0.92 16% Dip	STABLE & DAMPED

	WITH GBPP GEN PROJECT	POWER FLOW (MW)										STABILITY RESULTS		
CASE NO.	CASE DESCRIPTION	SCIT FLOW	EOR FLOW	COI FLOW	GBPP GEN	PANDA GEN	PVNG GEN	PVNG MARG	NEW GEN	PV /HSP TOT	PANDA 500/230	PV500 (P.U.)	MA500 (P.U.)	COMMENTS
ADDED	**NO ADDITIONAL NEW GEN.**													
2003HS	**BASE CASE** (2003HS-PDE-02)	**12233**	**6043**	**4209**	**833**	**2080**	**3991**	**0%**	**4650**	**8641**	**0**	**1.06**	**1.08**	
STAB-1	3 PH FLT @ JOJOBA 500KV BUS L/O TWO JOJOBA-GILA RIVER (TRIP PDE & PANDA GENERATION A TOTAL OF 2911 MW)											1.03 3% Dip	0.81 27% Dip	STABLE & DAMPED
STAB-2	L/O TWO PALO VERDE UNITS (TRIP A TOTAL OF 2809 MW GEN)											1.04 2% Dip	0.86 22% Dip	STABLE & DAMPED
STAB-3	3 PH FLT @ PV 500 KV BUS L/O TWO PV-WWG											0.95 11% Dip	0.98 10% Dip	STABLE & DAMPED

PF-TABLE 2
POWER FLOW IMPACT WITH AND WITHOUT THE GBPP(833MW) GEN PROJECT
(WITH THE PANDA GILA RIVER 500/230 KV TRANSFORMER)

BENCH MARK	CASE DESCRIPTION	EOR	GBPP	PANDA	PV	NEW	PANDA	PV-	PV-	PV-	PV-	JOJOBA	GILA RV-	PV-	PPK	KYR	
2003HS PDE-03	WITHOUT GBPP GEN PROJECT	FLOW	GEN	GEN	GEN	GEN	500/230	N.G.	DV	WWG#1	WWG#2	KYR	JOJOBA1	EST	230KV	230KV	COMMENTS
		(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(PU)	(PU)	
	BASE CASE (IN MW)	**5994**	**0**	**2080**	**3991**	**5040**	**402**	**1259**	**1336**	**1518**	**1518**	**1772**	**808**	**1194**	**1.02**	**1.00**	
	FACILITY RATING							(AMP)	(AMP)	(AMP)	(AMP)	(AMP)	(AMP)	(AMP)			
	CONTINUOUS RATING							1400	1900	3000	3000	2000	2100	2000			
	EMERGENCY RATING							1890	2430	3200	3200	2521	3150	2521	5% MAX	5% MAX	
	BASE CASE FLOW(AMP)							1402	1471	1675	1675	2000	**894**	1361	1.02	1.00	N-0 THERMAL
	% OF CONTINUOUS RATING							100.10%	77.40%	55.70%	55.70%	100.00%	42.60%	68.20%			LIMITATIONS
	OUTAGE CASE FLOW(AMP)																
ALT A	ONE PALO VERDE-WWG OUT							1467	1583	OUT	2707	2238	872	1596	1.02	1.00	NO PROBLEM
	% OF EMERGENCY RATING							77.60%	65.10%		84.60%	88.80%	27.70%	63.30%			
ALT B	PALO VERDE-ESTRELLA OUT							1444	1536	2105	2105	2377	866	OUT	1.01	0.99	NO PROBLEM
	% OF EMERGENCY RATING							76.40%	63.20%	65.80%	65.80%	94.30%	27.50%				
ALT C	JOJOBA-KYRENE OUT							1474	1586	2274	2274	OUT	793	1870	1.00	0.97	NO PROBLEM
	% OF EMERGENCY RATING							78.00%	65.30%	71.10%	71.10%		25.20%	74.20%			
ALT D	ONE JOJOB- GILA RIVER OUT							1400	1469	1668	1668	1989	1761	1358	1.02	1.00	NO PROBLEM
	% OF EMERGENCY RATING							74.10%	60.50%	52.10%	52.10%	78.90%	55.50%	53.80%			

2003HS-PDE-04	WITH GBPP GEN PROJECT	EOR FLOW	GBPP GEN	PANDA GEN	PV GEN	NEW GEN	PANDA 500/230	PV- N.G.	PV- DV	PV- WWG#1	PV- WWG#2	JOJOBA KYR	GILA RV- JOJOBA#1	PV- EST	PPK 230KV	KYR 230KV	COMMENTS
		(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(PU)	(PU)	
	BASE CASE FLOW	**6013**	**833**	**2080**	**3991**	**5070**	**439**	**1259**	**1336**	**1486**	**1486**	**1850**	**1213**	**1159**	**1.02**	**1.00**	
								(AMP)	(AMP)	(AMP)	(AMP)	(AMP)	(AMP)	(AMP)			
	BASE CASE FLOW							1402	**1472**	**1630**	**1630**	2093	**1345**	**1322**	1.02	1.00	EXCEEDS N-0
	% OF CONTINUOUS RATING							100.20%	77.50%	54.30%	54.30%	104.60%	64.10%	66.10%			LIMITATION
	OUTAGE CASE FLOW																
ALT A	ONE PALO VERDE-WWG OUT							1473	1594	OUT	2616	2323	1324	1547	1.02	1.00	NO PROBLEM
	% OF EMERGENCY RATING							78.00%	65.60%		81.70%	92.10%	42.00%	61.40%			
ALT B	PALO VERDE-ESTRELLA OUT							1449	1546	2043	2043	2453	1321	OUT	1.01	0.99	NO PROBLEM
	% OF EMERGENCY RATING							76.70%	63.60%	63.90%	63.90%	97.30%	41.90%				
ALT C	JOJOBA-KYRENE OUT							1486	1605	2251	2251	OUT	1243	1845	1.00	0.97	NO PROBLEM
	% OF EMERGENCY RATING							78.60%	66.00%	70.30%	70.30%		39.50%	73.20%			
ALT D	ONE JOJOB- GILA RIVER OUT							1400	1469	1621	1621	2078	2646	1317	1.02	1.00	NO PROBLEM
	% OF EMERGENCY RATING							74.10%	60.50%	50.70%	50.70%	82.40%	84.01%	52.20%			
PDE-04R	**BASE CASE (IN MW)**	**6011**	**683**	**2080**	**3991**	**4920**	**429**	**1257**	**1333**	**1463**	**1463**	**1793**	**1143**	**1141**	**1.03**	**1.01**	
			(-150)			(-150)											
	BASE CASE FLOW(IN AMP)							1400	**1468**	**1604**	**1604**	2007	**1265**	**1300**	1.03	1.01	N-0 THERMAL
	% OF CONTINUOUS RATING							100.00%	77.20%	53.50%	53.50%	100.30%	60.30%	65.00%			LIMITATIONS
ALT D	ONE JOJOB- GILA RIVER OUT							1398	1466	1596	1596	1993	2489	1294	1.03	1.01	NO PROBLEM
	% OF EMERGENCY RATING							74.00%	60.30%	49.90%	49.90%	79.10%	79.00%	51.40%			

TS-TABLE 2

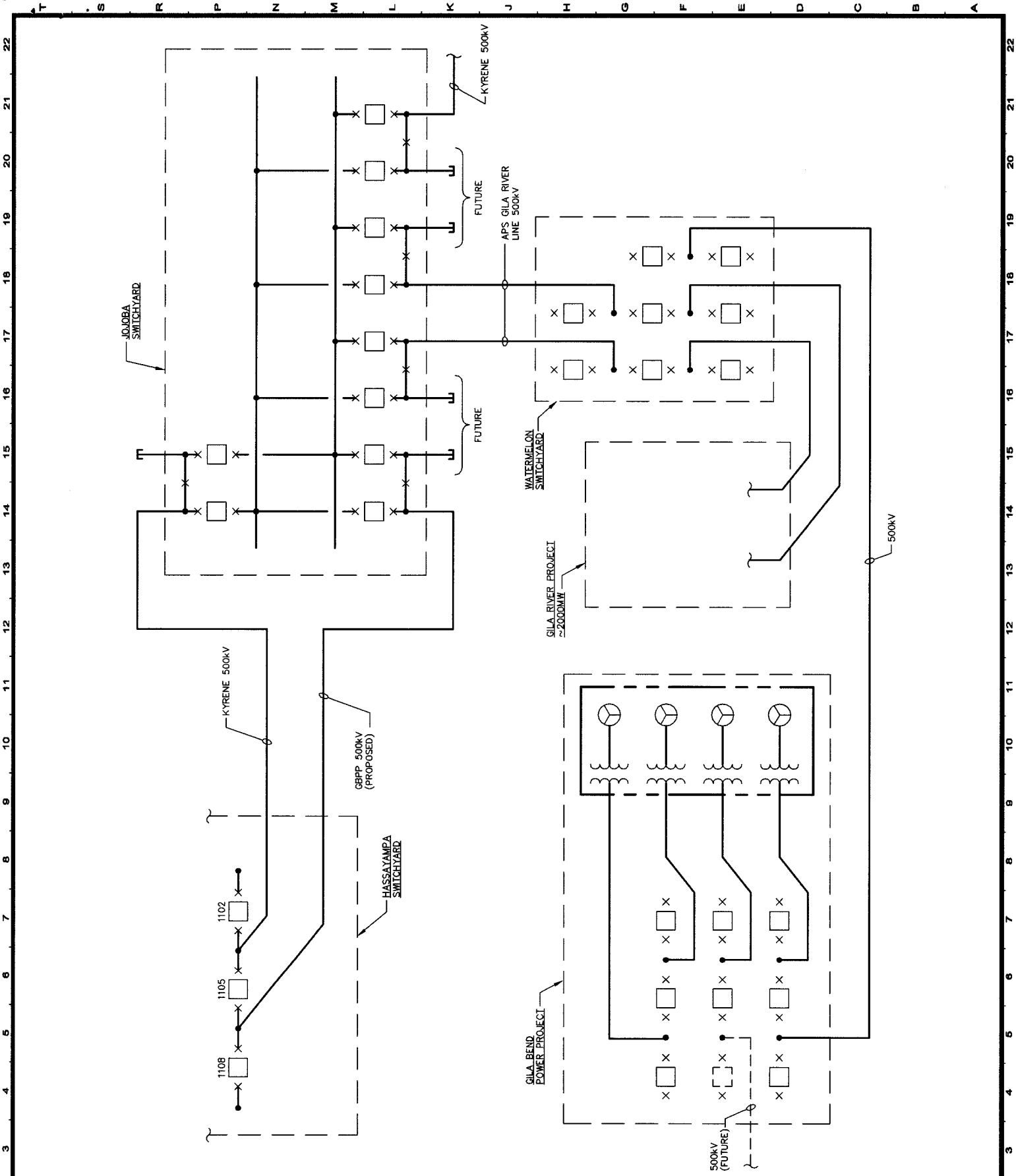
STABILITY IMPACT WITH AND WITHOUT THE GBPP(833 MW) GENERATION PROJECT

(WITH THE PANDA GILA RIVER 500/230 KV TRANSFORMER)

	WITHOUT GBPP GEN PROJECT	POWER FLOW (MW)										STABILITY RESULTS		
CASE NO.	CASE DESCRIPTION	SCIT FLOW	EOR FLOW	COI FLOW	GBPP GEN	PANDA GEN	PVNG GEN	PVNG MARG	NEW GEN	PV /NEW TOT	PANDA 500/230	PV500 (P.U.)	MA500 (P.U.)	COMMENTS
2003HS	**BASE CASE** (2003HS-PDE-03)	**12203**	**5994**	**4208**	**0**	**2080**	**3991**	**0%**	**5040**	**9031**	**402**	**1.06**	**1.08**	
STAB-1	3 PH FLT @ JOJOBA 500KV BUS L/O TWO JOJOBA-GILA RIVER (TRIP PANDA GENERATION OF 1560 MW; 3 UNITS OUT OF TOTAL4)											1.03 3% Dip	0.98 10% Dip	STABLE & DAMPED
STAB-2	L/O TWO PALO VERDE UNITS (TRIP A TOTAL OF 2809 MW GEN)											1.04 2% DIP	0.86 22% DIP	STABLE & DAMPED
STAB-3	3 PH FLT @ PV 500 KV BUS L/O TWO PV-WWG											0.95 11% Dip	0.98 10% Dip	STABLE & DAMPED

	WITH GBPP GEN PROJECT	POWER FLOW (MW)										STABILITY RESULTS		
CASE NO.	CASE DESCRIPTION	SCIT FLOW	EOR FLOW	COI FLOW	GBPP GEN	PANDA GEN	PVNG GEN	PVNG MARG	NEW GEN	PV /HSP TOT	PANDA 500/230	PV500 (P.U.)	MA500 (P.U.)	COMMENTS
ADDED	**NO ADDITIONAL NEW GEN.**													
2003HS	**BASE CASE** (2003HS-PDE-04)	**12235**	**6013**	**4209**	**833**	**2080**	**3991**	**0%**	**5070**	**9061**	**439**	**1.06**	**1.08**	
STAB-1	3 PH FLT @ JOJOBA 500KV BUS L/O TWO JOJOBA-GILA RIVER (TRIP PDE=833MW & PANDA=1560 MW; A TOTAL OF 2393 MW GEN)											1.03 3% Dip	0.90 18% Dip	STABLE & DAMPED
STAB-2	L/O TWO PALO VERDE UNITS (TRIP A TOTAL OF 2809 MW GEN)											1.04 2% Dip	0.86 22% Dip	STABLE & DAMPED
STAB-3	3 PH FLT @ PV 500 KV BUS L/O TWO PV-WWG											0.95 11% Dip	0.98 10% Dip	STABLE & DAMPED

EXHIBIT 2



INDUSTRIAL POWER TECHNOLOGY
2227 CAPRICORN WAY SUITE 101
SANTA ROSA, CALIFORNIA 95407
TEL: 707-538-8605/FAX: 707-538-8606

Consultants

No.	Revisions	Date

GILA BEND
POWER PARTNERS L.L.C.

INTERCONNECTION
DIAGRAM

20030206.141625

RW DESIGN	SS DRAWN	RW ENG.

Job Number: 147100 | Date: 2/6/03

Sheet Number

Fig 1

1 of 2 sheets

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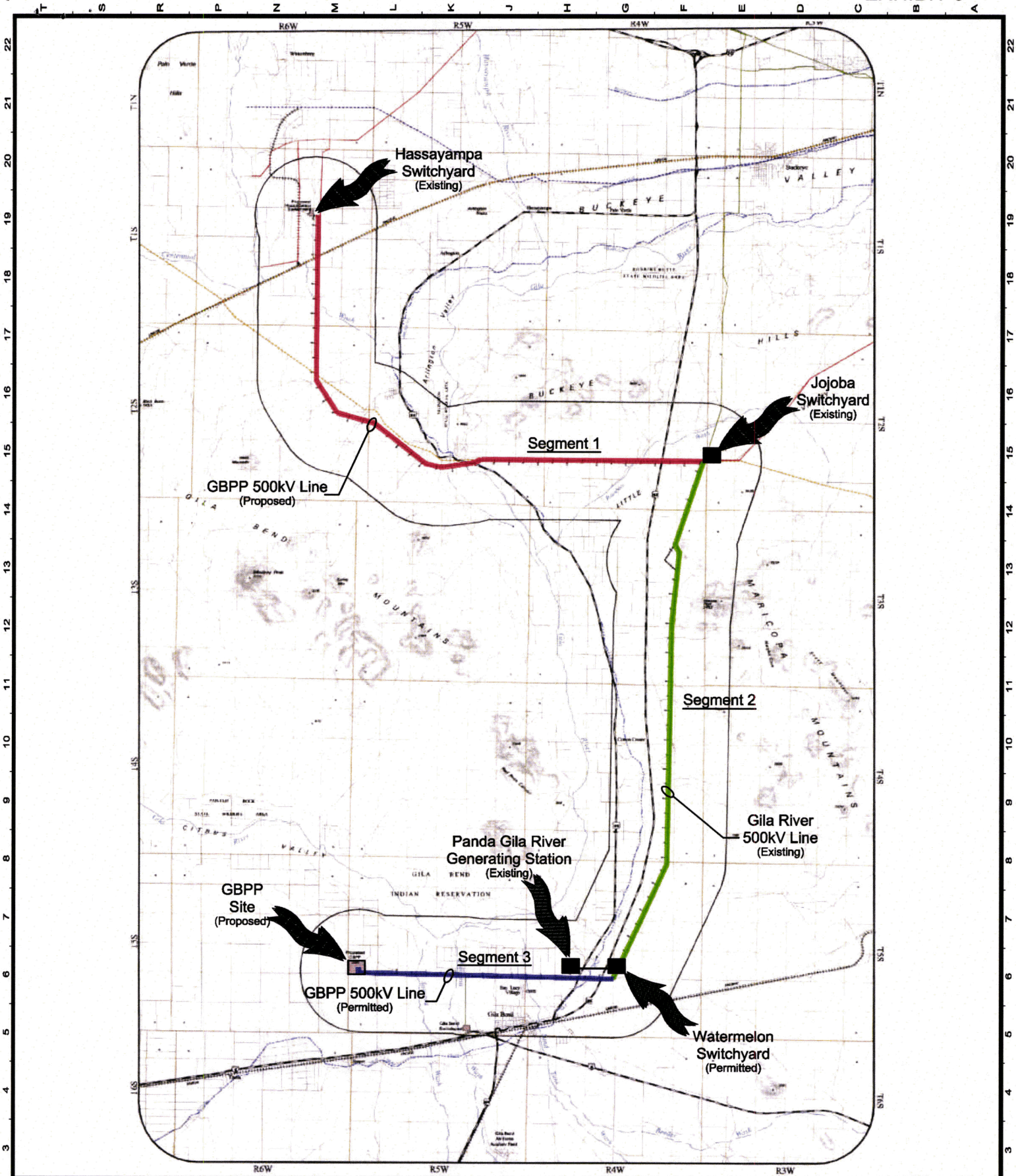
EXHIBIT 3



INDUSTRIAL POWER TECHNOLOGY
2227 CAPRICORN WAY SUITE 101
SANTA ROSA, CALIFORNIA 95407
TEL: 707-528-8400/FAX: 707-528-8401

Consultants

No.	Revisions	Date

GILA BEND
POWER PARTNERS L.L.C.

ROUTE
MAP

20030206.141529

RW DESIGN	SS DRAWN	RW ENG.

Job Number: 147100
Date: 2/6/03
Sheet Number
Fig 2
2 of 2 sheets

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